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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/009,445	11/13/2001	A. Neil Barclay	DX 01052K1	1467
28008	7590	02/25/2004	EXAMINER	
DNAX RESEARCH, INC. LEGAL DEPARTMENT 901 CALIFORNIA AVENUE PALO ALTO, CA 94304			QIAN, CELINE X	
			ART UNIT	PAPER NUMBER
			1636	

DATE MAILED: 02/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/009,445

Applicant(s)

BARCLAY ET AL.

Examiner

Celine X Qian

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-8 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

Claims 1-8 are pending in the application.

#### ***Election/Restrictions***

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 1, drawn to a recombinant or natural polypeptide comprising a sequence displays in one of the sequence identifier (SEQ ID).

Group II, claim(s) 1, drawn to a fusion polypeptide comprising OX2RH1 sequence from a specific origin.

Group III, claim 2, drawn to a binding compound that comprises an antigen binding site or an antibody, which specifically bind to a natural OX2RH.

Group IV, claims 3 and 4, drawn to a nucleic acid encoding a polypeptide of claim 1 or hybridizes to the sequence of one of the SEQ ID, or exhibits identity to a OX2RH cDNA.

Group V-VIII, claims 5-7, drawn to a method of enhancing myeloid function of a cell by contacting V) an antibody to the OX2RH, VI) a soluble OX2RH construct, VII) a soluble OX2RH-Ig fusion, VIII) an OX2RH antisense nucleic acid to the OX2RH.

Group IX-XII, claims 5-7, drawn to a method of enhancing immunity of a cell or animal by contacting IX) an antibody to the OX2RH, X) a soluble OX2RH construct, XI) a soluble OX2RH-Ig fusion, XII) an OX2RH antisense nucleic acid to the OX2RH.

Group XIII, claim 8, drawn to for identifying a non-OX2 ligand for an OX2R by screening a library from a OX2 knockout mouse for a gene binding to OX2R-Ig fusion protein.

PCT rule 13.2 requires that unity of invention exists only when there is a shared same or corresponding technical feature among the claimed inventions. Each group has a different special technical feature not shared by the remaining groups. The special technical feature of

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Group I directed to a polypeptide that shares a segment sequence homology with one of the SEQ ID, which is not shared by the remaining groups. The special technical feature of Group II is a fusion peptide comprising OX2RH1 sequence and other peptide sequence, which is not shared by the remaining groups. The special technical feature of Group III is a binding compound that binds to a natural OX2RH, which is not shared by the remaining groups. The special technical feature of Group IV is a nucleic acid that share sequence similarity to the nucleic acid sequence encoding OX2RH, which is not shared by the rest of the groups. The special technical feature of Group V is a method of enhancing myeloid function of a cell by using OX2RH antibody, which is not shared by the remaining groups. The special technical feature of Group VI is a method of enhancing myeloid function of a cell by using a soluble OX2RH nucleic acid construct, which is not shared by the remaining groups. The special technical feature of Group VII is a method of enhancing myeloid function of a cell by using s soluble OX2RH-Ig fusion peptide, which is not shared by the remaining groups. The special technical feature of Group VIII is a method of enhancing myeloid function of a cell by using OX2RH antisense molecule, which is not shared by the remaining groups. The special technical feature of Group IX is a method of enhancing immunity of a cell or animal by using OX2RH antibody, which is not shared by the remaining groups. The special technical feature of Group X is a method of enhancing immunity of a cell or animal by using a soluble OX2RH nucleic acid construct, which is not shared by the remaining groups. The special technical feature of Group XI is a method of enhancing immunity of a cell or animal by using OX2RH-Ig fusion peptide, which is not shared by the remaining groups. The special technical feature of Group XII is a method of enhancing immunity of a cell or animal by using OX2RH antisense, which is not shared by the remaining groups. The special technical

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feature of Group XIII is identifying a non-OX2 ligand by using a library from an OX2 knockout mouse, which is not shared by the remaining groups. Therefore, the unity of invention does not exist between Groups I-XIII.

Groups I-IV are comprised of multiple inventions which are the products drawn to different and distinct sequences which do not render obvious each other and thus lack unity. If any of Groups I-IV are elected, applicants must elect a single invention which is the product drawn to one specific sequence to which the claims will be restricted. Note, this restriction to examination of a single sequence is due to the now very high and undue burden for examining more than one sequence which is caused by the continued exponential increase of size of the sequence databases to be searched for each sequence, resulting in a corresponding increase in computer search time and examiner time for reviewing the computer search results. Therefore, the limited resources of the Office no longer permit examination of more than one sequence in an application.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

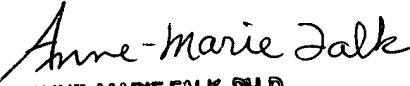
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Celine X Qian whose telephone number is 571-272-0777. The examiner can normally be reached on 9:30-6:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Remy Yucel Ph.D. can be reached on 571-272-0781. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Celine Qian, Ph.D.

  
ANNE-MARIE FALK, PH.D.  
PRIMARY EXAMINER